

96-205767/21 A97 E24 G02 (A14)
MITSUI TOATSU CHEM INC

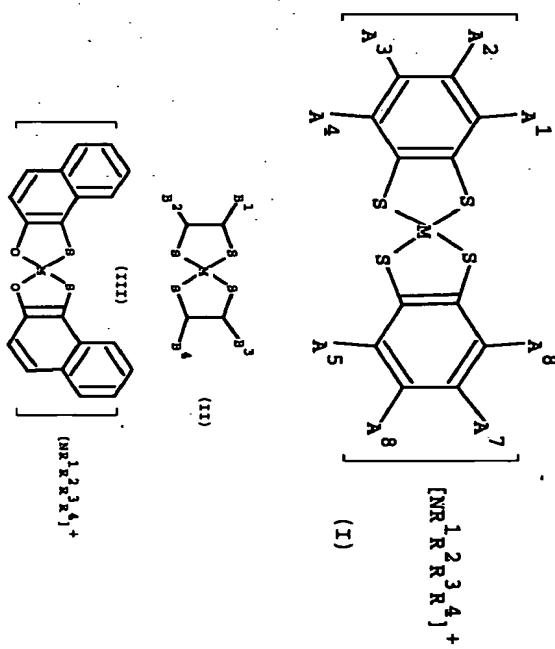
MITK 93.09.10
*JP 08073792-A

A(12-W7D) E(22-C, 22-C3, 23-B, 25-E) G(2-A4A, 2-A4B)

Ink compsn. used for printing near IR light inspection - including phthalocyanine cpd., naphthalocyanine cpd., aminium salt and anthraquinone cpd.

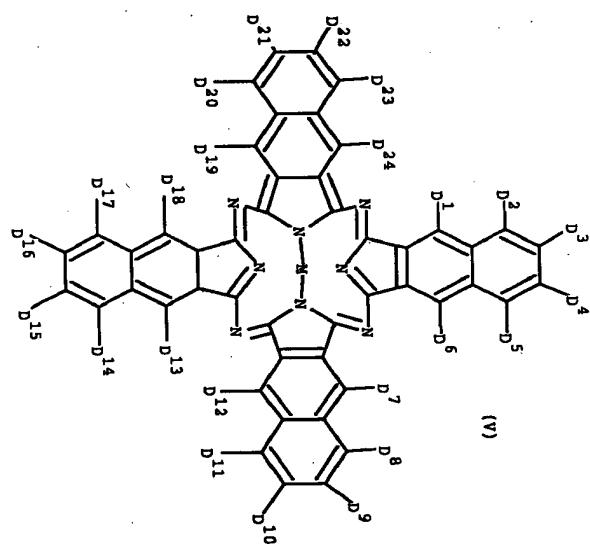
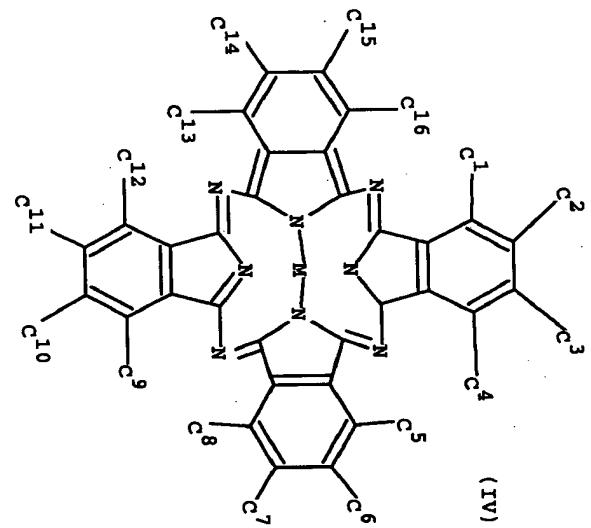
Addnl. Data: 94.09.01 94JP-208605, 93.12.10 93JP-3107677

The ink comprises at least one of a near infrared ray absorber of metal complex of formula (I), (II) and (III), a phthalocyanine cpd. of formula (IV), a naphthalocyanine cpd. of formula (V), aminium salt of formula (VI) and anthraquinone cpd. of formula (VII), at least one of an acrylic resin (excepting for phthalocyanine cpd.), hydrocarbon resin, a copolymer of acrylic cpd. and hydrocarbon as a binder resin;



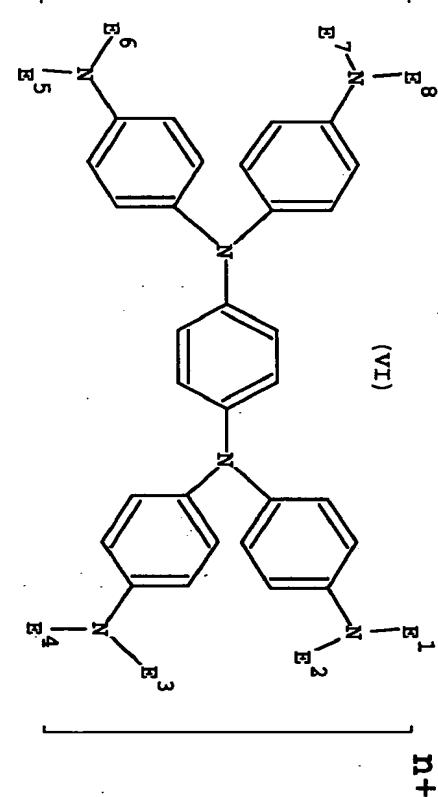
JP 08073792-A+

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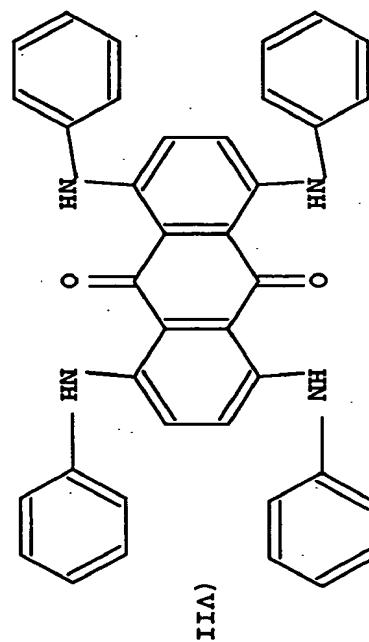
JP 08073792-A+1

96-205767/21



ny

$A^1-A^8 = H, \text{halogen}, \text{NO}_3, \text{CN}, \text{SCN}, \text{NCO}, \text{acyl}, \text{carbamoyl},$
 $\text{alkylamino carbonyl}, \text{alkoxycarbonyl}, \text{aryloxycarbonyl}, \text{alkyl}, \text{aryl},$
 $\text{aryloxy}, \text{alkylthio}, \text{arylthio}, \text{alkylamino}, \text{arylamino};$
 $B^1-B^4 = H, \text{CN}, \text{acyl}, \text{carbamoyl}, \text{alkylamino carbonyl},$
 $\text{alkoxycarbonyl}, \text{aryloxycarbonyl}, \text{alkyl}, \text{aryl};$
 $R^1-R^4 = \text{alkyl}, \text{aryl}, M = \text{divalent metal, tri, tetravalent substituted}$
 $C^1-C^{16}, D^1-D^{24} = H, \text{halogen}, \text{alkyl}, \text{alkoxy}, \text{aryl}, \text{aryloxy}, \text{alkylthio},$



JP 08073792-A+2

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aryithio, alkylamino, arylamide, amide;
E¹-E⁸ = H, alkyl;
Y = halogen, SbF₆, ClO₄, BF₄, NO₃;
n = 1,2.

The above hydrocarbon portion may be substituted.

USE

The ink is used for printing a near infrared ray inspection material including banking material, pass, tickets, prepayed card, an identity card etc.

ADVANTAGE

The ink has a high light stability, and the printed matter by the ink shows high contrast by the difference of reflection in near infrared ray region between the printed portion and not printed portion.

PREFERRED COMPOSITION

The ink comprises UV absorber, a singlet oxygen quencher, a radical trapping agent or a solvent.
(CM)
(16pp011DwgNo.0/0)